



## **ABSTRACT**

A method for extracorporeal treatment of blood includes preparing a treatment liquid from a liquid and two concentrated solutions by circulating the liquid in a preparation conduit at a flowrate  $Q_0$ ; injecting a first concentrated solution containing at least a first ionic substance A and a second ionic substance B into the preparation conduit at a flowrate  $Q_1$ ; and injecting a second concentrated solution containing at least the first ionic substance A into the preparation conduit at a flowrate  $Q_2$ . The ionic substance B may have a first concentration in the first concentrated solution and a second concentration, different from the first concentration, in the second concentrated solution. The method may also include regulating the injection flowrates  $Q_1$  and  $Q_2$  in such a way that at any given time the diluted solution resulting from the mixing of the liquid and the concentrated solutions has a desired concentration of the first ionic substance A and a desired concentration of the second ionic substance B. The method may further include supplying the treatment liquid to an inlet of a membrane exchanger; removing a spent liquid from an outlet of the membrane exchanger; measuring the concentration of the second ionic substance in the treatment liquid; and measuring the concentration of the second ionic substance in the spent liquid. The injection flowrates  $Q_1$  and  $Q_2$  may be regulated on the basis of the concentrations of the second ionic substance measured in the treatment liquid and in the spent liquid.